



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re United States Patent Application of:

Applicant: Jose I. Arno

Serial No.: 10/065,219

Examiner: TBA

Date Filed: September 26, 2002

Group Art Unit: 2812

Title: **SYSTEM FOR IN-SITU GENERATION OF FLUORINE  
RADICALS AND/OR FLUORINE CONTAINING  
INTERHALOGEN (XF<sub>n</sub>) COMPOUNDS FOR USE IN CLEANING  
SEMICONDUCTOR PROCESSING CHAMBERS**

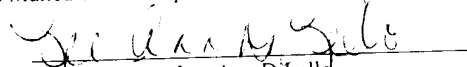
**EXPRESS MAIL CERTIFICATE**

It hereby is certified by the person identified below that the attached documents are being mailed by such person to the Commissioner for Patents on the date specified, in an envelope addressed to the Box DAC, Commissioner for Patents, Washington, DC 20231, and Express Mailed under the provisions of 37 CFR 1.10.

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**GROUP 1700**

  
Lee Ann DiLello

February 13, 2003  
Date of Mailing

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Express Mail Label Number

**PETITION TO CORRECT INVENTORSHIP UNDER 37 C.F.R. § 1.48  
IN U.S. APPLICATION NO. 10/065,219**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

This Petition is submitted under the provisions of 37 C.F.R. § 1.48 to provide a statement of facts by the original inventor and added inventor in the above-referenced U.S. Patent Application, as evidence that the incorrect identification of inventorship in the Declaration for such application as originally filed in the United States Patent and Trademark Office on September 26, 2002 was the result of an inadvertent error on the part of Applicants to correctly identify Jose Arno and W. Karl Olander as inventors in the above-referenced application and that such incorrect identification arose without any deceptive intention.

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By an Amendment under 37 C.F.R. §1.48 submitted concurrently herewith (the "Inventorship Amendment"), W. Karl Olander is added as a named inventor in the above-referenced U.S. Patent Application.

The oath or declaration as required by 37 C.F.R. § 1.63 is concurrently submitted herewith ("Declaration and Power of Attorney for Patent Application").

The written consent of assignee as required by 37 C.F.R. § 1.48(a) is concurrently submitted herewith ("Consent of Assignee to Change of Inventorship").

Please charge Deposit Account No. 50-0860 in the amount of \$130 as specified in 37 C.F.R. § 1.17(h) for this Petition under 37 C.F.R. § 1.48(a). Please charge any deficiency, and credit any excess payment, to Deposit Account No. 50-0860 of ATMI, Inc.

#### **STATEMENT AND PETITION OF ORIGINALLY NAMED INVENTOR**

I, Jose I. Arno as the originally named inventor in this United States Patent Application 10/065,219 (the "Application"), hereby:

1. petition under the provisions of 37 C.F.R. § 1.48 for correction of the inventorship in this Application, consistent with the Inventorship Amendment under 37 C.F.R. §1.48 filed concurrently herewith, on the basis that an incorrect identification of inventorship in the Declaration and Power of Attorney as originally filed in the United States Patent and Trademark Office on November 7, 2002, in this application under Response to Notice to File Missing Parts was made in error and without any deceptive intention;
2. affirmatively state that the invention described and claimed in the Application at the time of its filing was the joint invention of Jose I. Arno and W. Karl Olander;
3. state that the exclusion of W. Karl Olander, as a named co-inventor in the above-referenced U.S. Patent Application at the time of its filing, was an error which occurred without any deceptive intention by me when the application was filed, including the Declaration and Power of Attorney for such application, executed October 1, 2002 by Jose I. Arno;

4. state that an Inventorship Amendment under 37 C.F.R. § 1.48 is concurrently submitted herewith, in which the inventorship stated and of record for the Application has been amended to add W. Karl Olander as a co-inventor of the subject matter described and claimed in such application;
5. state that the inventorship as set forth in the originally filed Application, Patent Application Transmittal Letter, and Declaration and Power of Attorney for the Application, erroneously excluded; W. Karl Olander;
6. state that the error in the inventorship occurred as a result of the initial preparation of filing papers for the Application in the name of Jose I. Arno and that upon review of the claims in the Application, it was determined that W. Karl Olander should be named as a co-inventor, and in consequence of such determination, the Application has been amended to reflect Jose I. Arno and W. Karl Olander as inventors in all instances;
7. state that such inadvertent error was discovered by ATMI's Legal Department and this Petition was thereupon prepared;
8. state that I have executed a declaration in satisfaction of the requirements of 37 C.F.R. § 1.63 as concurrently submitted herewith ("Declaration and Power of Attorney for Patent Application"); and
9. state that I have duly executed this Petition as an undersigned co-inventor for the above referenced U.S. Patent Application.

**STATEMENT AND PETITION OF NEWLY NAMED AND  
JOINED INVENTORS**

I, the undersigned individual, W. Karl Olander, as the newly named and joined inventor for this United States Patent Application No. 10/065,219 (the "Application") hereby:

1. affirm, adopt and corroborate the foregoing statement of facts by the originally named inventor of the above-referenced U.S. Patent Application;

2. join in this petition under the provisions of 37 C.F.R. § 1.48 for correction of the inventorship for the Application, consistent with the Amendment under 37 C.F.R. §1.48 filed concurrently herewith (the "Inventorship Amendment"), on the basis that the incorrect identification of inventorship in the Application Transmittal Letter and Declaration for such application as originally filed in the United States Patent and Trademark Office on September 26, 2002 and November 7, 2002 respectively, was made in error and without deceptive intention.
3. state that I have executed a Declaration in satisfaction of the requirements of 37 C.F.R. § 1.63 as concurrently submitted herewith ("Declaration and Power of Attorney for Patent Application"); and
4. state that I have duly executed this Petition as an undersigned co-inventor of the invention described and claimed in the Application.

### STATEMENT OF ALL INVENTORS

As a below-named inventor, I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issued thereon.

Customer No.: 25559

Respectfully submitted,

---

Jose I. Arno

---

Date

---

W. Karl Olander

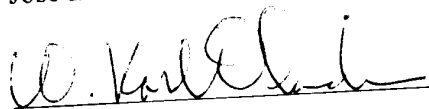
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Date

**ATMI, Inc.**  
7 Commerce Drive  
Danbury, CT 06810  
Telephone: (203) 794-1100  
Facsimile: (203) 797-2544  
Attorney File: 506

Respectfully submitted,

\_\_\_\_\_  
Jose I. Arno

\_\_\_\_\_  
  
W. Karl Olander

\_\_\_\_\_  
Date

\_\_\_\_\_  
2/03/03  
Date

**ATMI, Inc.**  
7 Commerce Drive  
Danbury, CT 06810  
Telephone: (203) 794-1100  
Facsimile: (203) 797-2544  
Attorney File: 506

Customer No.: 25559

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re United States Patent Application of:

Applicant: Jose I. Arno

Serial No.: 10/065,219

Examiner: TBA

Date Filed: September 26, 2002

Group Art Unit: 2812

Title: **SYSTEM FOR IN-SITU GENERATION OF FLUORINE  
RADICALS AND/OR FLUORINE CONTAINING  
INTERHALOGEN (XF<sub>n</sub>) COMPOUNDS FOR USE IN CLEANING  
SEMICONDUCTOR PROCESSING CHAMBERS**

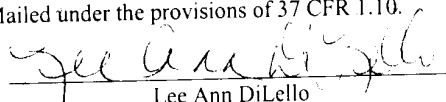
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GROUP 1700

**EXPRESS MAIL CERTIFICATE**

It hereby is certified by the person identified below that the attached documents are being mailed by such person to the Commissioner for Patents on the date specified, in an envelope addressed to the Box DAC, Commissioner for Patents, Washington, DC 20231, and Express Mailed under the provisions of 37 CFR 1.10.

  
Lee Ann DiLello

February 13, 2003

Date of Mailing

EV178871555US

Express Mail Label Number

**AMENDMENT SUBMITTED UNDER THE PROVISIONS OF 37 C.F.R. § 1.48(a)  
CORRECTING THE INVENTORSHIP IN U.S. APPLICATION NO. 10/065,219**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

A review of the inventorship in the above-referenced U.S. Patent Application has revealed that the inventorship stated and of record in the present application, of Jose I. Arno should be corrected to add W. Karl Olander as a co-inventor for the subject matter of the claims filed in the application.

Accordingly, please amend the inventorship in this application, by replacing the inventorship of

"Jose I. Arno"

with

-- Jose I. Arno and W. Karl Olander - -

in all instances.

Applicants have provided a clean copy of the first page of the specification in Appendix A.

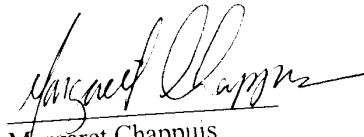
The following documents are submitted herewith:

- Oath or declaration required by 37 C.F.R. § 1.63: "Declaration and Power of Attorney for Patent Application";
- Written consents of the assignees required by 37 C.F.R. § 1.48(a): "Consent of Assignee to Change of Inventorship";
- Petition for Correction of Inventorship in accordance with the requirements of 37 C.F.R. § 1.48, together with the Petition fee of \$130 as specified in 37 C.F.R. § 1.17(h);
- Copy of new Assignment document.



In the event any further questions should arise in connection with the foregoing,  
the Examiner is invited to contact the undersigned at the telephone number given  
below.

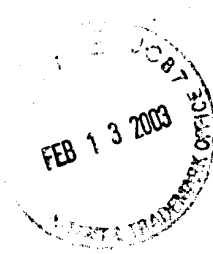
Respectfully submitted,



Margaret Chappuis  
Agent for Applicant  
Registration No. 45,735

**ATMI, Inc.**  
7 Commerce Drive  
Danbury, CT 06810  
Telephone: (203) 794-1100  
Facsimile: (203) 797-2544  
Attorney File: 506

**APPENDIX A**



2771-506

**UNITED STATES PATENT APPLICATION**

**OF**

**JOSE I. ARNO**

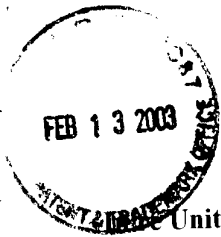
**And**

**W. KARL OLANDER**

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**FOR**

**SYSTEM FOR IN-SITU GENERATION OF FLUORINE RADICALS AND/OR  
FLUORINE-CONTAINING INTERHALOGEN (XF<sub>n</sub>) COMPOUNDS FOR USE  
IN CLEANING SEMICONDUCTOR PROCESSING CHAMBERS**



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

United States Patent Application of:

Applicant: Jose I. Arno

Serial No.: 10/065,219

Examiner: TBA

Date Filed: September 26, 2002

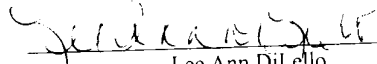
Group Art Unit: 2812

Title: **SYSTEM FOR IN-SITU GENERATION OF FLUORINE  
RADICALS AND/OR FLUORINE CONTAINING  
INTERHALOGEN (XF<sub>n</sub>) COMPOUNDS FOR USE IN CLEANING  
SEMICONDUCTOR PROCESSING CHAMBERS**

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Lee Ann DiLello

February 13, 2003  
Date of Mailing

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Express Mail Label Number

CONSENT OF ASSIGNEE TO CHANGE OF INVENTORSHIP IN  
U.S. PATENT APPLICATION NO. 10/065,219

Commissioner for Patents  
Washington, D. C. 20231

Sir:

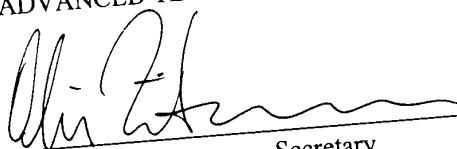
Advanced Technology Materials, Inc., a Delaware Corporation having offices at 7 Commerce Drive, Danbury, Connecticut 06810, as assignee of the entire interest of the above-captioned U.S. Patent Application No. 10/065,219 filed September 26, 2002, by an Assignment executed on October 1, 2002 by Jose I. Arno and filed with the Assignment Division of the United States Patent and Trademark Office for

Customer No.: 25559

recordation on November 7, 2002 (a true and exact copy of which Assignment is enclosed in Exhibit 1 hereof), hereby consents to the correction of inventorship of this application from the naming of Jose I. Arno to the naming of Jose I. Arno and W. Karl Olander. A true and exact copy of the Assignment document attached in Exhibit 1 has been reviewed by assignee in compliance with the requirements of 37 CFR §3.73. Based on this review, such assignee hereby certifies that to the best of assignee's knowledge and belief, title to United States Patent Application 10/065,219 is in the assignee seeking to take this action.

Respectfully submitted,

ADVANCED TECHNOLOGY MATERIALS, INC.



By: Oliver A. Zitzmann, Secretary

ATMI, Inc.  
7 Commerce Drive  
Danbury, CT 06810  
Phone: (203) 794-1100  
Facsimile: (203) 797-2544  
ATMI File: 506

FEB 13 2003

## DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below-named inventor, Jose I. Arno and W. Karl Olander, do hereby declare that my residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled "**SYSTEM FOR IN-SITU GENERATION OF FLUORINE RADICALS AND/OR FLUORINE-CONTAINING INTERHALOGEN (XFn) COMPOUNDS FOR USE IN CLEANING SEMICONDUCTOR PROCESSING CHAMBERS**", the specification of which

(check one) ☐ is attached hereto.  
☒ was filed on September 26, 2002 as Application Serial No. 10/065,219 (if applicable).  
☐ and was amended \_\_\_\_\_

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

MAR 03 2003

Priority Claimed  
☐ Yes ☒ No

\_\_\_\_\_  
 (Number)

\_\_\_\_\_  
 (Country)

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 (Day/Month/Year Filed)

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this specification is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

\_\_\_\_\_  
 (Application Number)

\_\_\_\_\_  
 (Filing Date)

\_\_\_\_\_  
 (Status-Patented, Pending, abandoned)

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

**OLIVER A. ZITZMANN, Reg. No. 38,691**  
**STEVEN J. HULTQUIST, Reg. No. 28,021**  
**MARGARET CHAPPUIS, Reg. No. 45,735**  
**WILLIAM RYANN, Reg. No. 44,313**

All correspondence in connection with this application should be sent to:

**Oliver A. Zitzmann**  
**ATMI, Inc.**  
**7 Commerce Drive**  
**Danbury, CT 06810**  
**Telephone: (203) 794-1100**

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of first inventor: Jose I. Arno

Inventor's Signature \_\_\_\_\_

Date \_\_\_\_\_

Residence: 13 Twilight Lane, Brookfield, CT 06804

Citizenship: Spain

Post Office Address: 13 Twilight Lane, Brookfield, CT 06804

Full Name of second inventor: W. Karl Olander

Inventor's Signature \_\_\_\_\_

Date \_\_\_\_\_

Residence: 19616 Gulf Boulevard, Apt. 301, Indian Shores, FL 33785

Citizenship: US

Post Office Address: 19616 Gulf Boulevard, Apt. 301, Indian Shores, FL 33785

All correspondence in connection with this application should be sent to:

**Oliver A. Zitzmann**  
**ATMI, Inc.**  
**7 Commerce Drive**  
**Danbury, CT 06810**  
**Telephone: (203) 794-1100**

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Full Name of first inventor: Jose I. Arno

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence: 13 Twilight Lane, Brookfield, CT 06804

Citizenship: Spain

Post Office Address: 13 Twilight Lane, Brookfield, CT 06804

Full Name of second inventor: W. Karl Olander

Inventor's Signature W. Karl Olander Date 2/03/03

Residence: 19616 Gulf Boulevard, Apt. 301, Indian Shores, FL 33785

Citizenship: US

Post Office Address: 19616 Gulf Boulevard, Apt. 301, Indian Shores, FL 33785



# RECORDATION FORM COVER SHEET

Docket Number  
ATMI 506

TO THE HONORABLE COMMISSIONER OF PATENTS AND TRADEMARKS:  
Please record the attached original document or copy thereof.

1. Name of conveying party (ies):

Jose I. Arno

FEB 13 2003

Additional name(s) of conveying party (ies) attached? ☐ Yes ☒ No

2. Name and address of receiving party:

Advanced Technology Materials, Inc.  
7 Commerce Drive  
Danbury, Connecticut 06810

Additional name(s) and addresses attached? ☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment ☐ Merger ☐ Security Agreement

☐ Change of name

☐ Other

Execution Date: October 1, 2002

4. Application number(s) or patent number(s): U.S. Serial No. 10/065,219  
If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☐ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Oliver A. Zitzmann  
Advanced Technology Materials, Inc.  
7 Commerce Drive  
Danbury, Connecticut 06810  
Telephone: 203-794-1100

7. Total Fee (37 CFR 3.41): \$ 40

☐ Enclosed

☒ Authorized to be charged to deposit account

6. Total number of applications and patents involved: 1

8. Deposit account number:  
50-0860

DO NOT USE THIS SPACE

9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy.*

November 7, 2002

Date

Margaret Chappuis  
Margaret Chappuis  
Reg. No. 45,735

## ASSIGNMENT

We have made an invention described in the U.S. Patent Application entitled **"SYSTEM FOR IN-SITU GENERATION OF FLUORINE RADICALS AND/OR FLUORINE-CONTAINING INTERHALOGEN (XF<sub>n</sub>) COMPOUNDS FOR USE IN CLEANING SEMICONDUCTOR PROCESSING CHAMBERS"** which has been executed by us on the same date as this Assignment for filed in the United States Patent and Trademark Office.

We assign to Advanced Technology Materials, Inc., 7 Commerce Drive, Danbury, Connecticut 06810, all of our ownership and rights in:

- (i) the invention and U.S. Patent Application;
- (ii) U.S. Patents on the invention; and
- (iii) corresponding foreign patent applications and patents.

We are making this assignment based on our relationship with Advanced Technology Materials, Inc.

We request the Commissioner of Patents and Trademarks of the United States and the appropriate officers of all foreign countries to issue patents on the invention to Advanced Technology Materials, Inc.

We agree to execute any other legal documents that may be required to effectuate this Assignment.

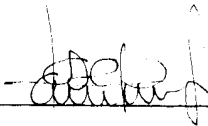
We agree that we will promptly communicate to Advanced Technology Materials, Inc. all facts that come to our attention affecting the invention or patent rights.

We agree that we will testify in any interference or litigation involving the invention or patent rights.

We state that we have not previously taken any action in conflict with this Assignment.

Full Name of first inventor: Jose I. Arno

Inventor's Signature



Date

10/1/02

Residence: 13 Twilight Lane, Brookfield, CT 06804

Citizenship: Spain

Post Office Address: 13 Twilight Lane, Brookfield, CT 06804